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<b>(21) International Application Number:</b> PCT/EP99/07065  <b>(22) International Filing Date:</b> 22 September 1999 (22.09.99)  <b>(30) Priority Data:</b> 98870203.1                      24 September 1998 (24.09.98)      EP  <b>(71) Applicant (for all designated States except US):</b> INNOGENET-ICS N.V. [BE/BE]; Industriepark Zwijnaarde 7, Box 4, B-9052 Ghent (BE).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> JANNES, Geert [BE/BE]; E. Vanhoorenbekelaan 23/1, B-3010 Leuven (BE). SCHMITT, Heinz-Josef [DE/DE]; Poggenkaugsweg 1a, D-24113 Molssee (DE).  <b>(74) Agent:</b> DE CLERCQ, Ann; Ann De Clercq & Co. B.V.B.A., Brandstraat 100, B-9830 Sint-Martens-Latem (BE).		<b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
<b>(54) Title:</b> IDENTIFICATION OF MICROORGANISMS CAUSING ACUTE RESPIRATORY TRACT INFECTIONS (ARI)		
<b>(57) Abstract</b>  <p>The present invention relates to a method for the detection of acute respiratory tract infection (ARI) comprising the simultaneous amplification of several target nucleotide sequences present in a biological sample by means of a primer mixture comprising at least one primer set from each one of the following gene regions: the F1 subunit of the fusion glycoprotein gene for RSV, the hemagglutininneuraminidase gene for PIV-1, the 5' noncoding region of the PIV-3 fusion protein gene, 16 S rRNA sequence for <i>M.pneumoniae</i>, 16 S rRNA sequence for <i>C.pneumoniae</i>, the 5' noncoding region for enterovirus, the non-structural protein gene from influenza A, the non-structural protein gene from influenza B, and the hexon gene for adenoviruses. This multiplex RT-PCR method is particularly preferred because it allows to determine the presence of the following microorganisms which infect the respiratory tract of mainly children in one amplification step: RSV, parainfluenza virus, <i>M.pneumoniae</i>, <i>C.pneumoniae</i>, enterovirus, influenza A and B and adenoviruses. The present invention also relates to a kit for performing the above-mentioned detection method as well as to the individual probes and primers used therein.</p>		